

Heat Stress in Cambodia's GFT Sector

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អាល្លឺម៉ង់

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Example of Sectors impacted by heat stress

Outdoor workers



Image source: [Link](#)



Image source: [Link](#)



Image source: [Link](#)



Image source: [Link](#)

Indoor workers



Image source: [Link](#)



Image source: [Link](#)

The GFT Sector

~1M



Most of them women

**USD
15.7B**



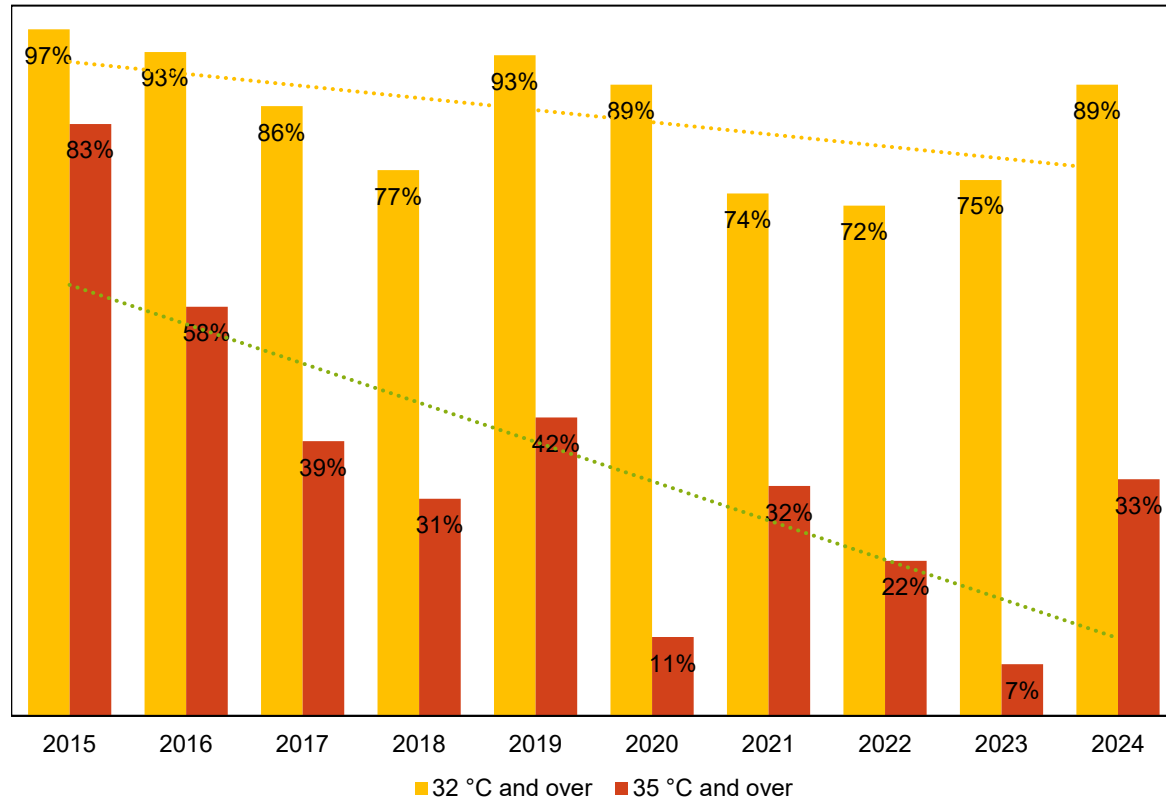
Cambodia exports, 2025

Source: 2025-Cambodia GFT Sector Brief: Issue 4 ([Link](#))

When heat hits this sector, it hits women workers and household incomes at scale.

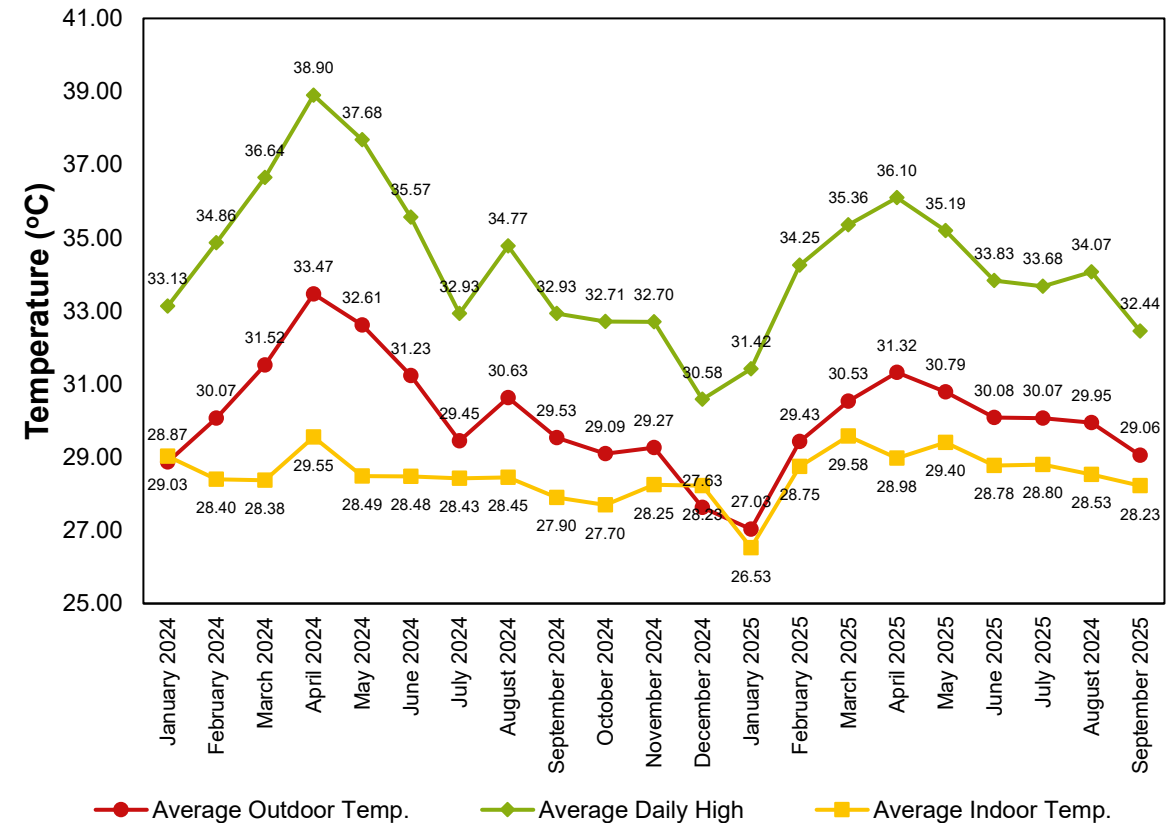
Factories are Hot

Number of factories with indoor dry bulb (air) temperature above 32°C and 35°C, March, April and May 2015 - 2024



Source: GLI Analysis using BFC data ([Link](#))

Indoor and outdoor temperatures in a factory in Phnom Penh



Source: 2026-Cooling before it got cool: Case studies in heat adaptation in Southeast Asian Factories ([Link](#))

Sources of Heat Stress in a Typical Garment Factory

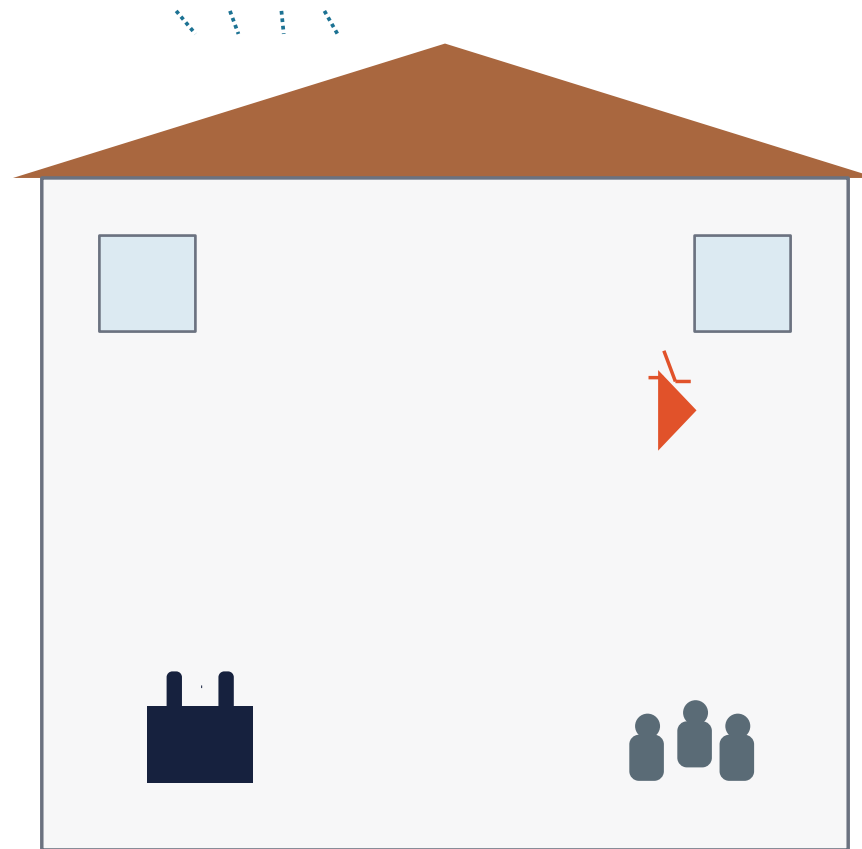
Heat builds up from four distinct kinds of sources at once — rarely just one.

1. Environmental

- High outdoor temperature
- High relative humidity
- Solar heat through roofs/walls/windows

3. Equipment-related

- Sewing-machine motors
- Compressors
- Boilers
- Generators
- Lighting



2. Process-related

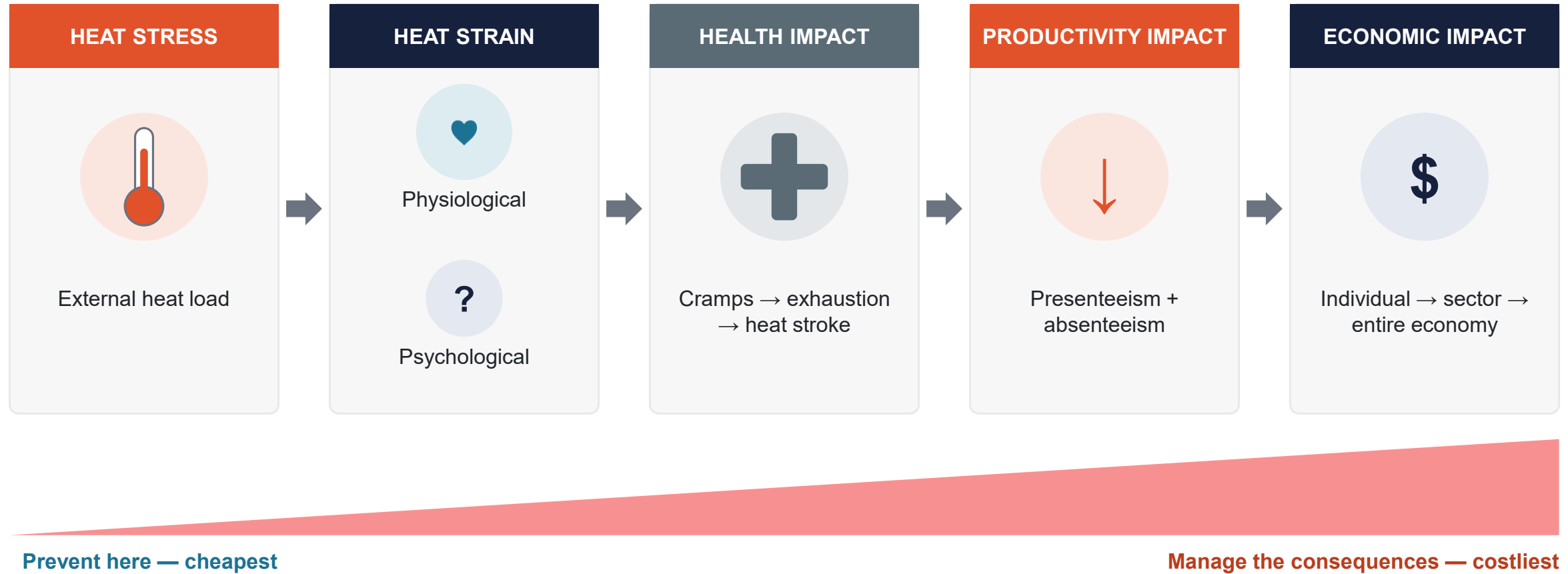
- Steam ironing
- Pressing
- Washing / dyeing / finishing
- Drying processes

4. Human / operational

- High worker density
- High production pace
- **Piece rate**
- Long periods of continuous work
- Physically demanding tasks
- Inadequate rest / recovery

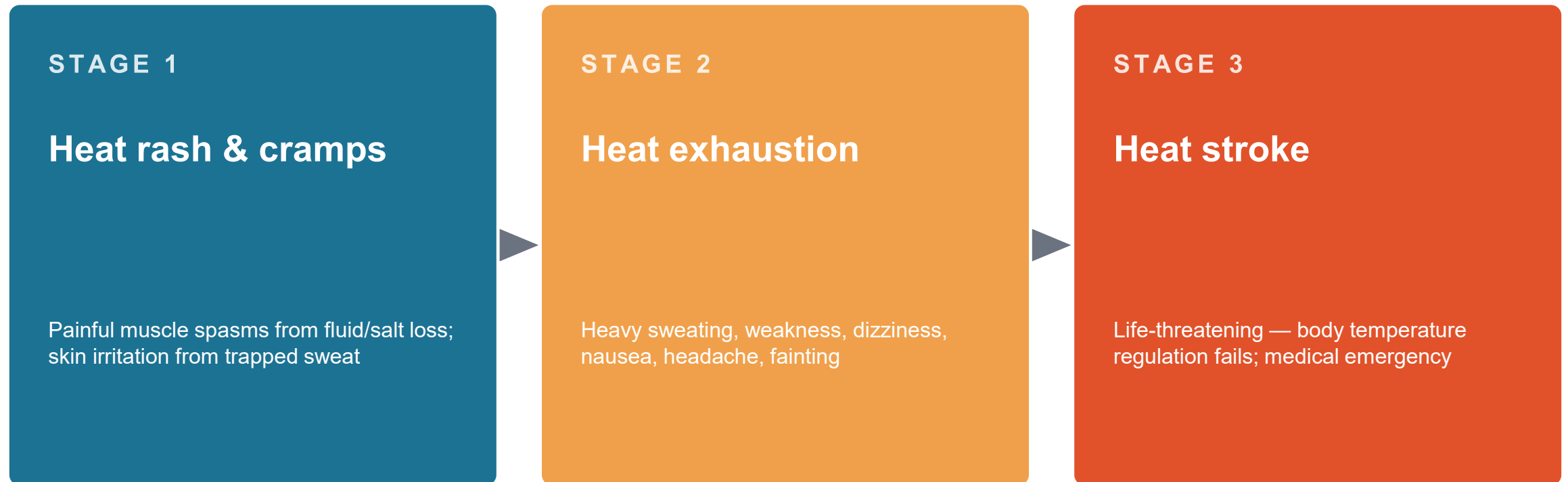
The Impact Chain

How one exposure cascades into measurable economic loss.



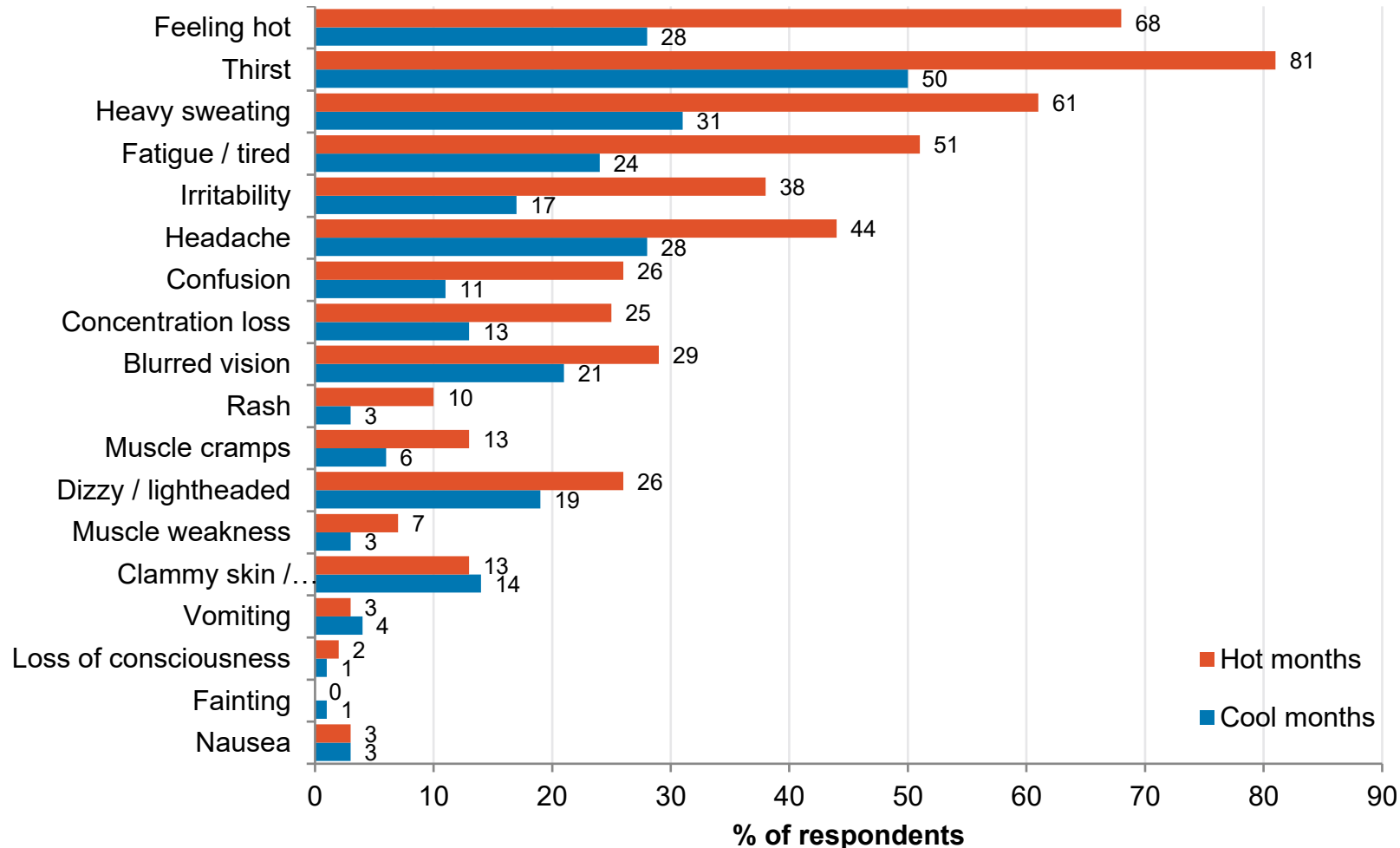
The Heat-Illness Spectrum

Heat-related illness is progressive — mild symptoms are an early-warning signal, not a separate problem from heat stroke.



Health Impacts: Heat-Related Symptoms in Cambodia

753 female workers, 3 factories in Phnom Penh — **cool months (WBGT 25.2°C)** vs. **hot months (WBGT 29.0°C)**.



Source: Chea et al. (2025), BMC Public Health.

Any heat-related symptom

68% → 88%

cool months vs. hot months

For additional information, please refer to this paper.



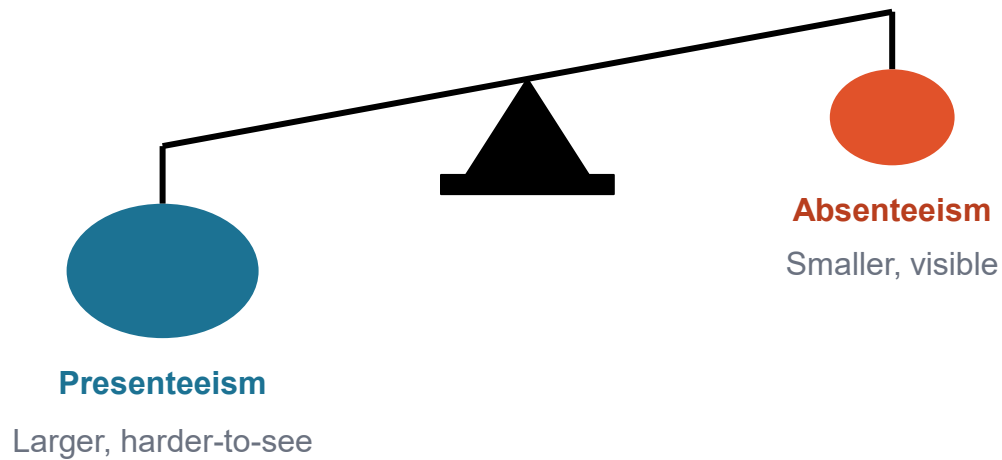
Two Faces of Productivity Loss

Heat stress reduces productivity in two distinct ways — one visible in attendance records, one hidden in work output.

Presenteeism

Reduced output while still at work, from thermal discomfort and impaired cognitive performance.

- Reduced actual sewing line efficiency
- More defects
- Invisible in HR records



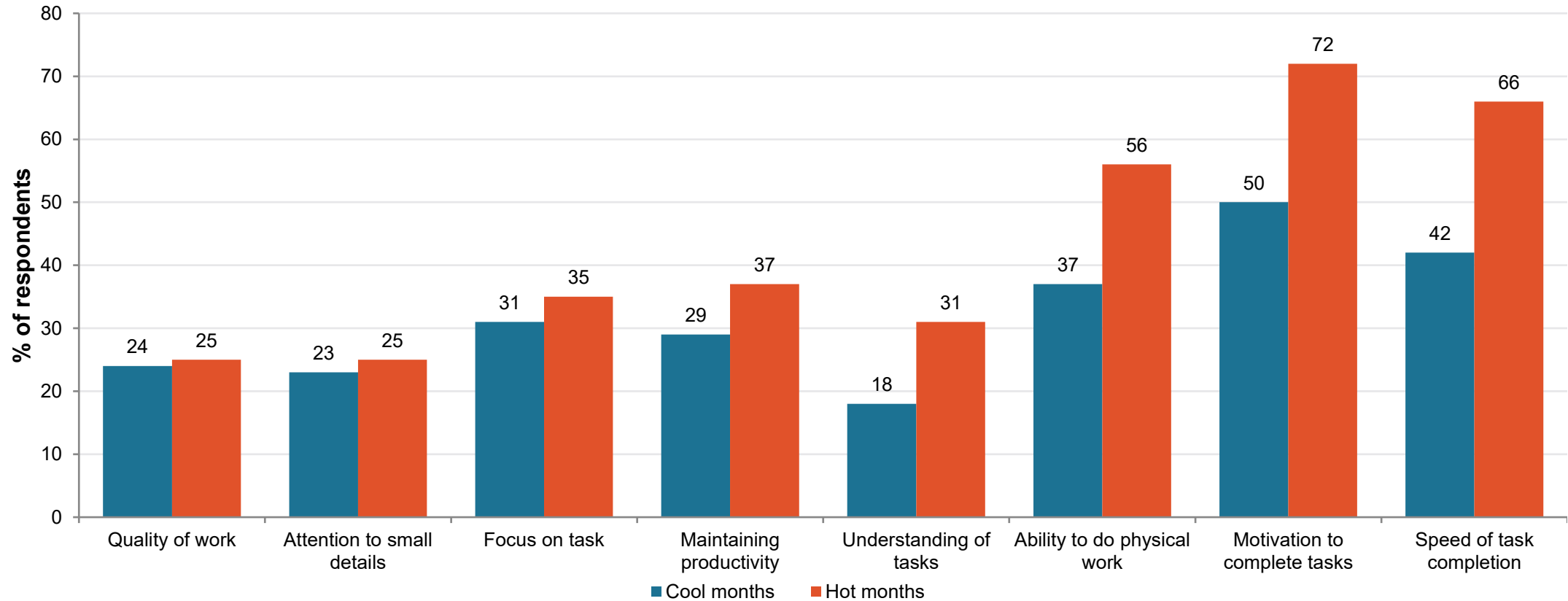
Absenteeism

Sick leave or missed shifts due to heat-related illness or injury.

- Heat exhaustion, fainting
- Missed shifts = lost capacity
- Visible in attendance records

Qualitative Impact of Heat Stress on Productivity

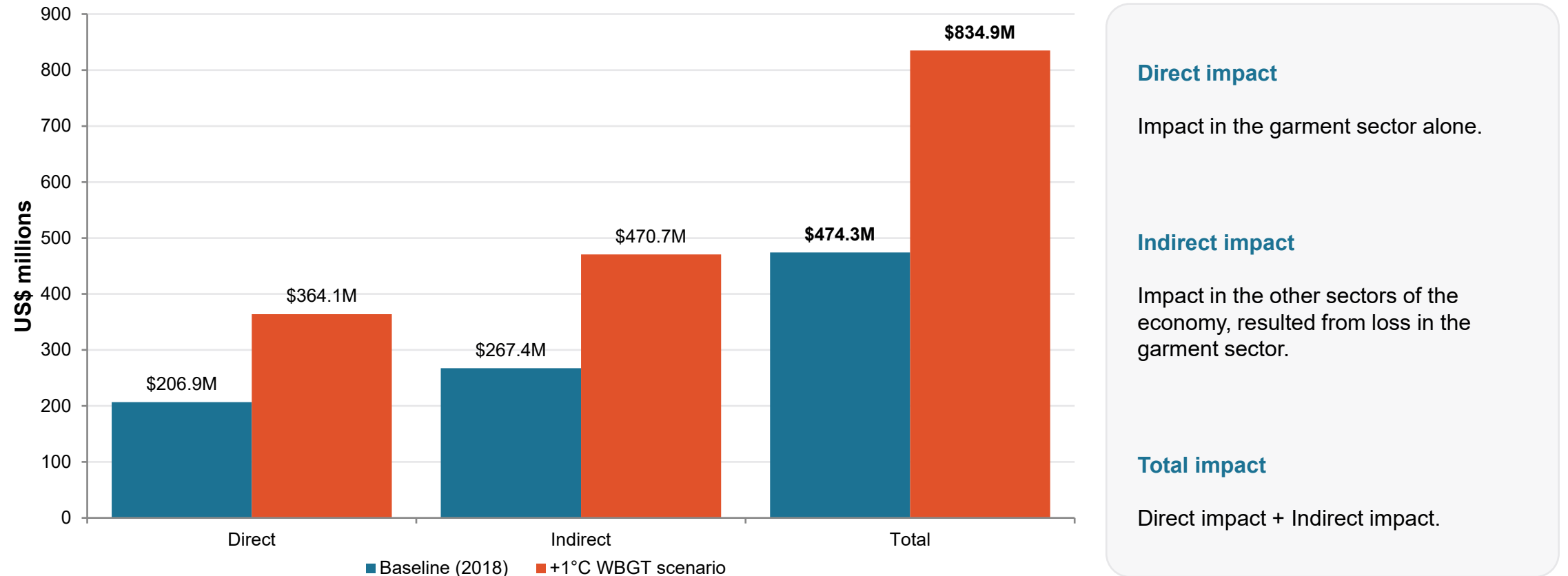
Complementing the actual sewing line efficiency data: how workers themselves perceive heat's impact on their ability to work (Chea et al., 2025).



Source: Chea et al. (2025), BMC Public Health — same 753-worker study as the heat-related symptoms data.

Economic Impact: Total Cost to the Sector

Monetising the hours lost across Cambodia's GFT sector — direct output loss plus indirect (supply-chain/multiplier) effects.



Total impact nearly doubles — from US\$474.3M to US\$834.9M — with just a 1°C rise in WBGT.

Source: Chea et al. (2026), The 15th Scientific Day of ITC.

Multi-Stakeholder Consultation and Sustainability Recommendation Paper

We did not assume. We consulted with key stakeholders.



Sustainability Recommendation Papers on Mitigating Heat Stress

- Key findings from multi-stakeholder consultation
- Role-specific recommendations

For additional information, please refer to this paper.



What Stakeholders Told Us



Heat is already hurting

Fatigue, accidents, illness, lower productivity



Knowledge gaps remain

Among workers, employers and institutions



Factories need options

Practical, scalable: quick wins now, investments later



Workers need a voice

Stronger role for workers and unions



Brands are part of it

Buyers can support suppliers



Policy is moving

OSH Law and Prakas 147 revision; regulation alone is not enough

Role-Specific Recommendations



Government

- Revise Prakas 147: WBGT thresholds and work-rest rules
- Pilot and scale heat measurement; national heat monitoring
- WBGT meters for inspectors
- Khmer awareness campaigns



Factories

- WBGT risk assessments and a written heat plan
- Fans, ventilation, cooling; rest and water breaks
- Cool water and shade now
- Engage unions; heat sick leave, no retaliation



Buyers

- Heat in codes and audits, harmonised across buyers
- Co-finance mitigation; give technical support
- Review sourcing practices, especially March-May
- Public heat-safe sourcing commitments



Worker organisations and CSOs

- Heat on the agenda in dialogue and bargaining
- Train worker representatives; Khmer information
- Advocate for strong OSH Law provisions; monitor enforcement
- Document unrecorded illness; amplify women's voices

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